



BIOLOGY		TIME: 20 MINUTES
GROUP : FIRST	OBJECTIVE	MARKS: 17
NOTE: 	You have four choices for each objective type question as A , B , C and D . The choice which you think is correct , fill that circle in front of that question number. Use marker or pen to fill the circles. Cutting or filling two or more circles will result in zero mark in that question.	

QUESTION NO. 1

DGK-1-24

- 1 Magnesium of chlorophyll is replaced in Haemoglobin by :
(A) Calcium (B) Potassium (C) Phosphorous (D) Iron
- 2 Vitamin synthesized by the bacteria in ----- the large intestine is :
(A) Vitamin A (B) Vitamin K (C) Vitamin C (D) Vitamin D
- 3 How much air, lungs can hold when they are fully inflated :
(A) 3.5 litres (B) 1.5 litres (C) 5 litres (D) 4 litres
- 4 The uncontrolled production of white blood cells result in :
(A) Asthma (B) Thalassaemia (C) Oedema (D) Leucaemia
- 5 A hormone released by mesophyll cells at high temperature is :
(A) Absciscic acid (B) Amino acid (C) HCl (D) H₂SO₄
- 6 The control of pests by some living organism is called :
(A) Pest control (B) Living control (C) Biological control (D) Organismic control
- 7 The number of carbon atoms in alkanes found in waxes are :
(A) C₅ – C₁₅ (B) C₁₅ – C₂₅ (C) C₂₅ – C₃₅ (D) C₃₅ – C₄₅
- 8 If the co-factor is loosely attached to the protein part, the enzyme is known as :
(A) Co-enzyme (B) Apoenzyme (C) Holoenzyme (D) Activator
- 9 Single membrane bound organelle among the following is :
(A) Chloroplast (B) Mitochondria (C) Nucleus (D) Lysosome
- 10 Mumps and measles are caused by :
(A) RNA naked viruses (B) RNA enveloped viruses
(C) DNA naked viruses (D) DNA enveloped viruses
- 11 Important vector in a modern genetic engineering technique is :
(A) Plasmid (B) Nucleoid (C) Ribosome (D) Mesosome
- 12 Based on molecular data, euglenoids are thought to be closely related to :
(A) Brown Algae (B) Green Algae (C) Diatom (D) Zooflagellates
- 13 Cell wall of fungi is made up of :
(A) Pectin (B) Chitin (C) Murein (D) Cellulose
- 14 Male gametophyte has two wings in :
(A) Cycas (B) Pinus (C) Taxus (D) Picea
- 15 Process of shedding off the exoskeleton in arthropods is called :
(A) Ecdysis (B) Excretion (C) Lysis (D) Splitting
- 16 Arthropods which are mostly aquatic are called :
(A) Insects (B) Arachnids (C) Crustaceans (D) Myriapods
- 17 The most abundant Photosynthetic pigment among the chlorophylls is :
(A) Chlorophyll a (B) Chlorophyll b (C) Chlorophyll c (D) Chlorophyll d



SECTION - I

QUESTION NO. 2 Write short answers to any Eight (8) of the following *DGK-1-24* 16

- Why are lipids considered to be high energy compounds ?
- In enzymes, what happens when Non-Protein part attaches and detaches from protein part ?
- What is the difference between prosthetic group and co-enzyme ?
- Differentiate the Irreversible and Reversible inhibitors.
- What is Histoplasmosis ? How does its infection occur ?
- How do the predator fungi obtain their food ?
- How fertilization in Reptilia differs from Amphibia ?
- What is metameric segmentation ? In which phylum is it present ?
- Why are Echinoderms placed closest to chordates ?
- How respiration takes place in amphioxus ?
- Give molecular formula of chlorophyll "a" and chlorophyll "b".
- Write down importance of ATP.

QUESTION NO. 3 Write short answers to any Eight (8) of the following 16

- Define Tissue level. Give an example each of animal and plant tissue
- What do you know about "Integrated Disease Management" ?
- Why centrifugation is necessary for cell fractionation ?
- What is endocytosis ? Name its types.
- Kingdom Protista is defined by exclusion. Why ?
- What do you know about choanoflagellates ?
- What is the role of diatoms in aquatic ecosystem ?
- What is the infamous role of water molds in human history ?
- Why a scuba diver breathes pressurized air from cylinders ?
- Which respiratory pigment has more affinity with oxygen ? Write its function.
- Differentiate the open and closed circulatory system. Give an example
- What are causes of extracellular Oedema ?

QUESTION NO. 4 Write short answers to any Six (6) of the following 12

- What are mumps and measles ?
- Give economic importance of cyanobacteria.
- Compare annulus with stomium.
- Why bryophytes are called amphibious plants ?
- Differentiate the microphylls and megaphylls.
- What is protonema ? Give its structure.
- Narrate the terms appendix and appendicitis.
- Define Dyspepsia. Give its symptoms.
- What are Fluid feeders ? Give two examples.

SECTION-II

Note: Attempt any Three questions from this section

8 x 3 = 24

Q.5.(A)	What are inductive and deductive reasoning ? How can a biological problem be solved through biological method ?	4
(B)	What is diving reflex ? Explain in detail.	1+3
Q.6.(A)	What is peptide bond ? Discuss primary and secondary structure of protein.	1+3
(B)	What are Lichens ? Discuss the ecological importance of Lichens and mycorrhizae.	1+3
Q.7.(A)	Write down structure and functions of endoplasmic reticulum and Golgi complex.	2+2
(B)	How would you explain digestion in small intestine ?	3+1
Q.8.(A)	Describe life cycle of Bacteriophages.	4
(B)	Describe at least light functions of Blood.	4
Q.9.(A)	Explain nutrition of bacteria.	4
(B)	Describe the respiratory chain with the help of figure.	3+1

